

CLAIMS

1. A method of remotely monitoring building equipment comprising the steps of:
 - providing at least one item of building equipment communicably linked to a router, the router being communicably linked to an instant messaging server;
 - providing at least one remotely located interface, the at least one remotely located interface being communicably linked to the instant messaging server;
 - gathering data from the at least one item of building equipment with the router; and
 - transmitting the data from the router to the at least one remotely located interface in an instant message through the instant messaging server.
2. The method of claim 1, further comprising the step of assigning an instant messaging identifier to the router.
3. The method of claim 2, further comprising the step of assigning an instant messaging identifier to a user at the at least one remotely located interface.
4. The method of claim 3 further comprising the step of checking an authorized user list of the router for the instant messaging identifier of the at least one remotely located interface.
5. The method of claim 3 further comprising the step of checking an authorized user list of the at least one remotely located interface for the messaging identifier of the router.
6. The method of claim 1, further comprising the steps of:
 - packetizing the gathered building equipment data into at least one data packet; and
 - encapsulating the at least one data packet into the instant message.

7. The method of claim 4, wherein the step of packetizing the data into at least one data packet further comprises the step of converting the data prior to packetizing the data.
8. The method of claim 1, wherein the step of transmitting the data from the router to the at least one remote location interface in an instant message comprises sending an encapsulated data packet in an instant message.
9. The method of claim 8, further comprising the steps of unencapsulating the encapsulated data packet at the at least one remotely located interface and displaying the unencapsulated data at the at least one remotely located interface.
10. The method of claim 1, further comprising the steps of assigning addresses to each item of building equipment to permit electronic identification of the equipment, creating a unique profile for the building equipment, and associating the profile with each assigned address.
11. The method of claim 10, wherein the unique profile comprises at least one of the equipment type information, manufacturer information, serial number, and equipment operating specifications.
12. The method of claim 1, wherein the step of gathering data from the building equipment comprises gathering at least one of alarm data, faults data, operational status data, mode data, settings data, operational parameters, and historical parameters.
13. The method of claim 12, wherein the building equipment is heating, ventilation, or air conditioning equipment.
14. The method of claim 13, wherein the operational parameters and historical parameters comprise at least one of compressor speed, fan speed, thermostat setting, refrigerant level, refrigerant temperature, refrigerant pressure, run time, downtime, and maintenance information.
15. The method of claim 1, wherein the step of gathering data from the at least one item of building equipment includes the step of polling building equipment automatically at preselected intervals of time.

16. The method of claim 1, wherein the step of gathering data from the at least one item of building equipment is performed in response to a request submitted by a user through the IM server to the router.
17. The method of claim 16, wherein the request is packetized and encapsulated into an instant message that is sent to the IM server where it is routed to the router connected to the building equipment.
18. A system for remotely monitoring building equipment, the system comprising:
 - at least one item of building equipment;
 - a router communicably connected to the at least one item of building equipment to receive data from the building equipment, the router having a microprocessor and a memory storing computer program executable by the microprocessor, the computer program comprising computer instructions for gathering data from the connected building equipment, converting the data, packetizing the converted data, and encapsulating the packetized data into an instant message; and
 - an instant messaging server communicably connected to the router, the instant messaging server being configured to receive an instant message from the router and to transmit the instant message to at least one remotely located interface.
19. The system of claim 18, wherein the at least one item of building equipment has an assigned unique electronic address to permit electronic identification of the equipment, and wherein the assigned unique electronic address further comprises a portion of an electronic profile for the equipment.
20. The system of claim 18, wherein the building equipment is heating equipment, ventilation equipment, or air conditioning equipment.
21. The system of claim 20, wherein the data gathered from the building equipment comprises at least one of alarms data, faults data, operational status data, mode data, settings data, operational parameters, and historical parameters.
22. The system of claim 21, wherein the operational parameters and historical parameters comprise at least one of compressor speed, fan speed, thermostat

setting, refrigerant level, refrigerant temperature, refrigerant pressure, run time, downtime, and maintenance information.

23. The system of claim 18, wherein the computer program executable by the microprocessor comprising computer instructions for gathering data from the connected building equipment further comprises computer instructions for automatically gathering data at preselected intervals of time.
24. The system of claim 18, wherein the computer program executable by the microprocessor comprising computer instructions for gathering data from the connected building equipment further comprises computer instructions for gathering data in response to a request received in an instant message submitted by a user.
25. The system of claim 18, further comprised of at least one remotely located interface communicably connected to the message router through the instant messaging server, the remotely located interface having a microprocessor and a memory storing computer program executable by the microprocessor, the computer program comprising computer instructions for receiving packetized data encapsulated in an instant message created by the router, unpacketizing and unencapsulating the data, and displaying the data on the remotely located interface.
26. The system of claim 18, further comprised of at least one user interface communicably connected to the message router through the instant messaging server, the user interface having a microprocessor and a memory storing computer program executable by the microprocessor, the computer program comprising computer instructions for receiving a request for data to be gathered by the router, packetizing and encapsulating the request into an instant message, sending the instant message to the router through the instant messaging server, receiving a responsive instant message from the router containing packetized data encapsulated in an instant message created by the router, unpacketizing and unencapsulating the data, and displaying the data on the user interface.